

Sustainability (SUST)

Courses

SUST 11003. Foundations of Sustainability. 3 Hours.

Foundations of Sustainability is an interdisciplinary course to introduce concepts and theories of sustainability at global, regional, and local levels. Emphasis is on four thematic areas of sustainability; social, natural, built and managed systems. The aim is to increase environmental literacy for engagement of sustainability into students' own disciplines. (Typically offered: Spring)

SUST 110H3. Honors Foundations of Sustainability. 3 Hours.

Foundations of Sustainability is an interdisciplinary course to introduce concepts and theories of sustainability at global, regional, and local levels. Emphasis is on four thematic areas of sustainability; social, natural, built and managed systems. The aim is to increase environmental literacy for engagement of sustainability into students' own disciplines. Prerequisite: Honors standing. (Typically offered: Spring)
This course is equivalent to SUST 11003.

SUST 21003. Applications of Sustainability. 3 Hours.

Applications of Sustainability is an interdisciplinary course introducing data gathering, data analysis or interpretation, and synthesis of data applied to problems in sustainability. Students engage in hands-on, inquiry-based investigation of sustainability issues across four thematic areas: social systems, natural systems, built systems (Architecture & Engineering), and managed systems (Agriculture & Business). Prerequisite: SUST 11003 or instructor consent. (Typically offered: Fall)

SUST 3900V. Special Problems in Sustainability. 1-6 Hour.

Special Problems is intended to fulfill a need in the sustainability curriculum to offer one-time pilot course work in any semester prior to the formal curriculum approval process, offer seminars on unusual but timely topics in sustainability on a one-time basis, or independent study for students seeking additional expertise in sustainability research and scholarship. Prerequisite: SUST 11003 and SUST 21003 or instructor permission. (Typically offered: Irregular) May be repeated for up to 6 hours of degree credit.

SUST 41003. Capstone Experience in Sustainability. 3 Hours.

A capstone experience focused on service learning, research learning, or internship in sustainability. Student engagement in community service, research, or relevant work on sustainability through a summer internship or equivalent experience provides opportunities for students to apply sustainability theories and principles learned from prior course work toward advancing sustainability across society. Prerequisite: SUST 11003 and SUST 21003. (Typically offered: Spring)

SUST 46003. Environmental Sociology. 3 Hours.

The course provides a social perspective on environmental issues. It examines the linkage between society, ecological systems and the physical environment. It provides conceptual framework(s) for analyzing environmental issues, considers the role of humans in environmental issues, and enhances understanding the complexity of the relationship between societal organization and environmental change. Prerequisite: Junior or senior standing. (Typically offered: Fall)
This course is cross-listed with SOCI 46003.

SUST 46903. Environmental Justice. 3 Hours.

This course deals with the ethical, environmental, legal, economic, and social implications of society's treatment of the poor, the disenfranchised, and minorities who live in the less desirable, deteriorating neighborhoods, communities, and niches of our country. The class integrates science with philosophy, politics, economics, policy, and law, drawing on award-winning films, current news, and case studies. Prerequisite: Junior standing. (Typically offered: Spring)
This course is equivalent to GEOS 46903.

SUST 51003. Foundations of Sustainable and Resilient Systems. 3 Hours.

Exploring sustainability foundations, application, and assessment, this course provides students the skills and competencies to understand, communicate, and evaluate sustainability at multiple scales. Using core sustainability concepts, such as systems and complexity, resilience and vulnerability, we evaluate interrelationships among environmental, societal, and economic well-being and the implications for decision-making. (Typically offered: Fall)

SUST 52003. Decision Making, Analysis and Synthesis in Sustainability. 3 Hours.

Provides an applied framework for analyzing decision dynamics, supporting and promoting more sustainable decisions, and measuring the sustainability of systems. The course applies theories of change, institutional decision theory, social and institutional constructs of sustainability, indicator and metric development across social, ecological, and economic domains, and communication strategies. (Typically offered: Spring)

SUST 53003. Sustainable Global Food, Energy and Water Systems. 3 Hours.

Provides a detailed review of the existing global food production/distribution and water systems, with an emphasis on scarcity, equity, management and challenges from changing global systems. This course explores the inputs and efficiencies of existing agricultural production systems, and examines equity and value in these systems. (Typically offered: Fall)

SUST 54003. Sustainable Strategies and Practices in Fashion and Textiles. 3 Hours.

Explore the evolving landscape of sustainability in the fashion and textile industries through this comprehensive course. Delve into the pressing challenges of greenhouse gas emissions, chemical management, and resource efficiency while examining innovative strategies shaping the industry's future. Through in-depth case studies, expert insights, and interactive discussions, students will gain a critical understanding of preferred fibers, regenerative agriculture, and the role of transparency in global supply chains. Analyze how legislation and sustainability organizations influence industry practices and investigate the transformative potential of circularity to drive ethical, responsible, and profitable operations. This course equips students with the knowledge and skills to drive meaningful changes in a rapidly shifting global context. (Typically offered: Summer)

SUST 5900V. Special Problems in Sustainability. 1-6 Hour.

Special Problems is intended to fulfill a need in the sustainability curriculum to offer one-time pilot course work in any semester prior to the formal curriculum approval process, offer seminars on unusual but timely topics in sustainability on a one-time basis, or independent study for students seeking additional expertise in sustainability research and scholarship. Prerequisite: Graduate standing. (Typically offered: Irregular) May be repeated for up to 6 hours of degree credit.

SUST 69103. Sustainable Design and Construction: Remediation and Plants on Structure. 3 Hours.

Plants on Structure introduces students to strategies and techniques of plant use in the built environment. Potential topics include green infrastructure (e.g., green roofs and walls), site, soil, and water remediation techniques (e.g., phyto-remediation, bioswales, and living machines), and structural considerations. Technical documentation methods and other representation and/or communication techniques as a means of conveying design intent are included. (Typically offered: Spring)